第５講 第５問徹底対策①

第５問Ａ対策

You are the editor of your school newspaper. You have been asked to provide comments on an article about origami written by an American student named Mary.

Origami

[1] Many people in Japan have childhood memories of origami, where square sheets of paper are transformed into beautiful shapes such as animals and flowers. Origami has been enjoyed widely by people of all ages for centuries.

[2] A recent event reminded us that origami is viewed as a traditional Japanese art form overseas. When President Barack Obama visited Hiroshima in 2016, he made four origami paper cranes neatly. He then presented them to Hiroshima City. This was seen as a symbol of his commitment to friendship between the two countries and to world peace.

[3] Two positive influences of origami can be seen in care for the elderly and rehabilitation. Origami requires the precise coordination of fingers as well as intense concentration to fold the paper into certain shapes. It is thought to slow the progression of memory loss associated with such medical problems as Alzheimer’s disease. It is also believed that origami helps keep motor skills and increases brain activity, which aid a person recovering from injuries. For these reasons, both inside and outside Japan, there are many elderly care and rehabilitation programs in which origami is used.

NOTE

[4] Children also benefit from origami. It fosters creativity and artistic sense while allowing them to have fun. This has resulted in a large number of associations—both domestic and international—regularly holding events for young children such as origami competitions and exhibits. Isn't it surprising that many organizations that are active in these areas can be found overseas?

[5] **A** Furthermore, origami paper folding technology has promising applications in medicine. **B** In 2016, an international team of researchers developed a tiny paper-thin robot that can be used for medical treatment. The robot, made of material from pigs, is folded like origami paper and covered with a capsule made of ice. When the capsule is swallowed by a patient and reaches the patient's stomach, the capsule melts, and the robot unfolds as it absorbs water from the surrounding area. **C** After this, the robot is controlled from outside of the body to perform an operation. When the task is complete, the robot moves out of the body naturally. **D**

[6] As seen in the examples above, origami is no longer merely a traditional Japanese art form that many of us experienced as a leisure activity in childhood. In fact, it is a powerful agent that can bring positive change to the lives of all generations worldwide. While the appreciation of its beauty is likely to continue for generations to come, nowadays origami has come to influence various other aspects of our lives.

NOTE

問１ Mary's article mainly discusses [ ].

① the greater importance of origami in medicine than in other fields
② the invention of new types of origami in many foreign countries
③ the major role origami plays in promoting world peace and cooperation
④ the use of origami for cultural, medical, and educational purposes

問２ Mary's intention in Paragraphs [3] and [4] is probably to [ ].

① describe the history of origami's development outside Japan
② discuss the difficulties of using origami for treating diseases
③ express concerns about using origami for rehabilitation, elderly care, and education
④ introduce some contributions of origami to the lives of people of different ages

問３ You found additional information related to this topic and want to suggest that Mary add the sentence below to her article. Where would the sentence best fit among the four locations marked [A], [B], [C], and [D] in Paragraph [5]? [ ]

The developers of the robot say that this technology can be used, for instance, to remove a small battery from the stomach of a child who has accidentally swallowed it.

① [A]
② [B]
③ [C]
④ [D]

（「大学入学共通テスト」2017年度試行調査より）

NOTE

第５問Ｂ対策

You are preparing for a presentation about the characteristics of spices. You have found an article about black and white pepper. You are going to read the article and take notes.

Black and White Pepper

[Part 1] Some recent studies have increased our understanding of the role of spices in helping us live longer. There are a variety of spices in the world, but most likely you are familiar with two of them, black and white pepper. Black and white pepper both come from the fruit of the same pepper plant. However, they are processed differently. Black pepper is made from the unripe fruit of the pepper plant. Each piece of fruit looks like a small green ball, just 3 to 6 millimeters across. The harvested fruit turns black when it is dried under the sun. Each piece of dried fruit is called a *peppercorn*. The color of the powdered black pepper comes from the skin of the peppercorn. On the other hand, to get white pepper, the pepper fruit is harvested when it is cherry-red. The skin of the fruit is removed before sun-drying. The color of the seed inside the pepper fruit is white. This is how white peppercorns are processed. Because the skin is very thin, the size of black and white peppercorns is similar. White pepper is usually more expensive than black because there are more steps in processing it.

NOTE

[Part 2] Where does the flavor of pepper come from? The sharp spicy taste is caused by a natural compound called *piperine*. Not only the seed but also the outer layer of the peppercorn contains lots of piperine. Therefore, some people say black pepper tastes hotter than white. Black pepper also contains many other substances that make its taste more complex. The unique flavor of black pepper produced by the mixed substances goes well with many kinds of dishes. White pepper's flavor is often regarded as more refined than that of black pepper, but it is too weak to bring out the flavor of meat dishes such as steak. Thanks to its color, white pepper is often used in light-colored dishes. Mashed potatoes, white sauce, and white fish may look better when they are spiced with white pepper.

[Part 3] Historically, people have used pepper as a folk medicine. For instance, it was a popular remedy for coughs and colds. The health effect of pepper is partly caused by piperine. Like vitamin C, piperine is a potent antioxidant. This means that, by eating foods including this compound, we may prevent harmful chemical reactions. Furthermore, recent studies have found that pepper reduces the impact of some types of illnesses. All spices that include piperine have this effect on a person's body. Both black and white pepper have the same health benefits.

NOTE

Complete the notes by filling in [1] to [6].

Notes

Outline:

Part 1: ______[1]______

Part 2: ______[2]______

Part 3: ______[3]______

Table: Comparing Black and White Pepper

Common points	Differences
[4]	[5]

Main points: ______[6]______

問 1 The best headings for Parts 1, 2, and 3 are [1], [2], and [3], respectively. (You may use an option only once.)

① The characteristics of pepper as a spice
② The effects of pepper on health
③ The place of origin of black and white pepper
④ The production of black and white pepper

問２ Among the following, the common points and differences described in the article are [4] and [5], respectively. (You may choose more than one option for each box.)

① the amount of vitamin C
② the effect on illnesses
③ the flavor
④ the plant
⑤ the price
⑥ the removal of the skin

問３ This article mainly discusses [6].

① the advantages and disadvantages of using black and white pepper compared to other spices
② the reason why people started to make black and white pepper, and why they have lost popularity
③ the reason why white pepper is better than black pepper, and why it is better for us
④ the similarities and differences between white and black pepper, and also the health benefits of both

(「大学入学共通テスト」2017 年度試行調査より)

共通テスト対策講座 英語＜リーディング編＞　第５講　解答

第５問Ａ対策

解答

問１　④　　　　問２　④　　　　問３　④

問題と選択肢の訳

問１　メアリーの記事は主に［　　　　］について論じている。

① 医学における折り紙の重要性が他の分野よりも大きいこと
② 多くの国で新しい折り紙が考案されていること
③ 折り紙が世界の平和と協力を促進する上で果たす主な役割
④ 折り紙を文化，医学，教育の目的で使用すること

問２　段落 [3] および [4] におけるメアリーの意図は，おそらく［　　　　］だろう。

① 日本国外での折り紙の発展の歴史を記述すること
② 折り紙を病気の治療に使うことの難しさを議論すること
③ 折り紙をリハビリテーション，老人介護，教育に用いることへの懸念を表明すること
④ 異なる年齢の人々の生活に対する，折り紙のいくらかの貢献を紹介すること

問３　あなたはこのトピックに関連する追加情報を見つけ，メアリーに，次の文を記事に追加することを提案したい。段落 [5] のＡ，Ｂ，Ｃ，Ｄの４か所のうち，文を挿入するのに最も適した位置を選びなさい。

本文の全訳

あなたは学校新聞の編集者だ。アメリカ人の学生メアリーが書いた折り紙についての記事にコメントを求められた。

折り紙

[1] 日本の多くの人々は，四角い紙を動物や花などの美しい姿に変形させる折り紙にまつわる子供時代の思い出を持っている。折り紙は何世紀にもわたってあらゆる年代の人々に広く親しまれてきた。

[2] ある最近の出来事が，折り紙が海外では日本の伝統芸術と見なされていることを思い出させてくれた。2016 年にバラク・オバマ大統領が広島を訪れたとき，彼は四つの折り鶴をきれいに作った。そして，広島市に寄贈した。これは両国間の友好と世界平和への彼の強い決意の象徴と見なされた。

[3] 高齢者の介護やリハビリテーションにおいて，折り紙には二つの良い影響が見られる。折り紙は，紙を特定の形に折るために，指の正確な調整と高い集中力を必要とする。アルツハイマー病などの医学的問題に関連する記憶障害の進行を遅らせると考えられている。また，折り紙は運動能力を維持することによって，脳の活動を活発にし，怪我から回復する助けになると考えられている。このようなことから，折り紙を使った高齢者の介護やリハビリテーションプログラムは国内外を問わず多い。

[4] 折り紙は子供にも効果がある。創造性と芸術的センスを育み，彼らを楽しませる。その結果，国内外の多くの団体が，折り紙大会や展示会など，子供向けのイベントを定期的に開催している。これらの分野で活動している組織が海外にたくさんあるのは驚きではないだろうか。

[5] さらに，折り紙を折る技術には医学において有望な活用法がある。2016 年，国際的な研究チームが，治療に使用できる紙のように薄い小さなロボットを開発した。豚由来の材料で作られたロボットは，折り紙のように折り畳まれ，氷でできたカプセルで覆われている。カプセルが患者に飲み込まれ，患者の胃に到達するとカプセルは溶け，ロボットが周囲から水分を吸収しながら展開する。その後，ロボットを体外から制御して手術を行う。タスクが完了すると，ロボットは自然に体外に出る。

[6] 上記の例に見られるように，折り紙はもはや，私たちの多くが子供の頃に余暇活動として体験した，単なる日本の伝統芸術の形式ではない。事実，それは世界中のすべての世代の生活にポジティブな変化をもたらすことができる強力な作用因子だ。その美しさへの評価は今後も何世代にもわたり続くだろうが，現在では折り紙は私たちの生活において，他の様々な側面に影響を与えるようになった。

第 5 問 B 対策

解答

問 1 [1] ④　[2] ①　[3] ②

＊全部を正しく選択している場合のみ正解とする。

問 2 [4] ②，④　[5] ③，⑤，⑥

＊解答番号 [4] と [5] の両方をそれぞれ過不足なく回答している場合のみ正解とする。

問 3 ④

問題と選択肢の訳

第 5 問 B 対策

[1] ～ [6] に適切な選択肢を入れ，覚書を完成させよ。

問 1　パート 1，2，3 の最適な見出しは，それぞれ [1]，[2]，[3] だ。（選択肢は一回のみ選択可。）

① 胡椒の香辛料としての特徴
② 胡椒の健康への影響
③ 黒胡椒と白胡椒の原産地
④ 黒胡椒と白胡椒の製造

問２ 以下のうち，記事内で説明されている共通点と相違点は，それぞれ [4] と [5] だ。（各空欄内に複数選択可。）

① ビタミンＣの量
② 病気への影響
③ 味
④ 植物
⑤ 価格
⑥ 表皮の除去

問３ この記事では主に [6] 説明している，

① 他の香辛料と比較して，黒胡椒と白胡椒を使う利点と欠点
② 黒胡椒が作られるようになった理由と，人気がなくなった理由
③ 黒胡椒より白胡椒の方が良い理由と，私たちにとって良い理由
④ 白胡椒と黒胡椒の類似点と相違点，そして両者の健康効果

本文の全訳

あなたはスパイスの特徴についてのプレゼンの準備をしています。

黒胡椒と白胡椒についての記事を見つけました。あなたはその記事を読んでメモを取ろうとしています。

黒胡椒と白胡椒

[パート1] 最近のいくつかの研究で，私たちの長寿を助けるスパイスの役割についての理解が深まった。世界には様々なスパイスがあるが，おそらくその中の二つ，黒胡椒と白胡椒には馴染みがあるだろう。黒胡椒も白胡椒も同じ胡椒の果実から作られる。ただし，処理方法は異なる。黒胡椒は胡椒の熟していない果実から作られる。それぞれの果実は，直径わずか3～6ミリの小さな緑色のボールのように見える。収穫した果実を天日で乾燥させると黒くなる。乾燥させた果実の一粒一粒が胡椒の実と呼ばれる。黒胡椒の粉の色は，胡椒の実の表皮によるものだ。一方，白胡椒を得るには，さくらんぼのような赤い色をしているときに果実を収穫する。天日干しをする前に果実の表皮を取る。胡椒の果実の中の種の色は白い。白胡椒はこのようにして加工される。表皮がとても薄いので，黒胡椒と白胡椒の大きさは似ている。白胡椒は加工工程が多いため，通常黒胡椒よりも高価だ。

[パート2] 胡椒の味はどこからくるのだろう。ピリッとした辛味はピペリンという天然化合物に起因する。種子だけでなく，胡椒の実の外層にもピペリンが多く含まれている。そのため，黒胡椒は白胡椒よりも辛いという人もいる。黒胡椒には他にも，味をより複雑にする多くの物質が含まれている。ミックスされた物質によって生まれる，黒胡椒の独特の風味が，色々な料理によく合う。白胡椒の風味は黒胡椒より上品とされることが多いが，ステーキなど肉料理の風味を引き立てるには弱すぎる。白胡椒はその色のため,色の薄い料理によく使われる。マッシュポテト，ホワイトソース，白身魚は，白胡椒で味付けした方が見栄えが良いかもしれない。

[パート3] 歴史的には民間薬として胡椒が用いられてきた。例えば，咳や風邪の治療薬として一般的であった。胡椒の健康効果は一部ピペリンによって引き起こされる。ピペリンはビタミンCと同様に強力な抗酸化物質である。これは，この化合物を含む食品を食べることにより，有害な化学反応を防ぐことができるということを意味する。さらに，最近の研究で，胡椒はある種の病気の影響を軽減することが分かった。この人体への効果は，ピペリンを含むすべての香辛料にある。黒胡椒も白胡椒も健康効果は同じだ。

第５講 重要語彙リスト

＊一つ一つ何度も繰り返して，覚えてください

1	transform into ～	～に姿を変える
2	viewed as ～	～と見なされる
3	neatly	きれいに
4	commitment	強い決意に基づいた約束
5	influence	影響
6	care for the elderly	老人介護
7	rehabilitation	機能回復訓練，リハビリテーション
8	require	～を必要とする
9	precise	正確な
10	coordination	調整
11	intense	真剣な
12	concentration	集中
13	progression	進行
14	memory loss	記憶障害
15	Alzheimer’s disease	アルツハイマー病
16	motor skills	運動能力
17	foster	～を育成する
18	association	協会，団体
19	application	活用
20	tiny	とても小さい
21	swallow	～を飲み込む
22	unfold	（折り畳まれた物が）開く，広がる
23	absorb	～を吸収する
24	process	～を加工する
25	unripe	熟していない
26	harvest	～を収穫する
27	peppercorn	胡椒の実，ペッパーコーン
28	powder	～を粉末にする
29	natural compound	天然化合物
30	piperine	ピペリン
31	contain	～を含む
32	substance	物質
33	complex	複雑な
34	unique	唯一無二の
35	refined	上品な
36	folk medicine	民間薬
37	remedy	治療薬
38	potent	強力な
39	antioxidant	抗酸化物質
40	harmful	有害な

第５講　音読用白文

①②③④⑤⑥⑦⑧⑨⑩

Origami

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robot moves out of the body naturally.

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Black and White Pepper

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